

## Surface Operations Data Analysis and Adaptation Tool, Phase II

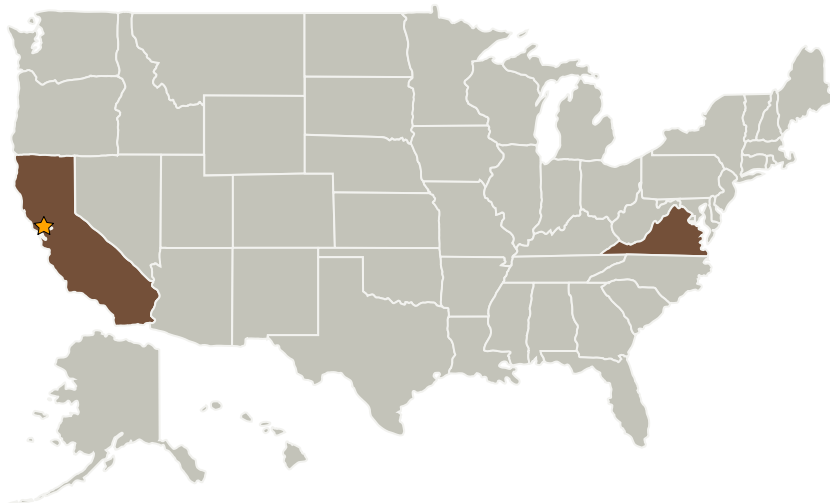
Completed Technology Project (2005 - 2007)



## Project Introduction

This effort undertook the creation of a Surface Operations Data Analysis and Adaptation (SODAA) tool to store data relevant to airport surface research and facilitate searching, visualizing, and analyzing that data, with the goal of improving understanding of airport surface operations. Data mining capabilities will, for example, support research of taxi routing and departure sequencing strategies used by air traffic controllers. The SODAA tool will reduce the time and cost required to build and maintain Surface Management System (SMS) adaptations. Finally, the SODAA tool will facilitate benefits and other studies by readily providing large sets of data without each researcher needing to separately collect appropriate data. In Phase 1, we designed and built a portion of the envisioned SODAA database as well as a limited visualization tool that, after Phase 2, will allow users to query the database and view the results in a variety of different formats. In addition, users will be able to add new analysis capabilities by creating plug-in modules. In addition, we conducted a variety of analyses of SMS data, providing insight into surface operations. Finally, we identified which SMS adaptation files could be developed using the SODAA tool.

## Primary U.S. Work Locations and Key Partners



Surface Operations Data  
Analysis and Adaptation Tool,  
Phase II

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## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission  
Directorate (STMD)

### Lead Center / Facility:

Ames Research Center (ARC)

### Responsible Program:

Small Business Innovation  
Research/Small Business Tech  
Transfer

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Organizations Performing Work	Role	Type	Location
★ Ames Research Center(ARC)	Lead Organization	NASA Center	Moffett Field, California
Mosaic ATM, Inc.	Supporting Organization	Industry	Leesburg, Virginia

Primary U.S. Work Locations	
California	Virginia

### Project Management

**Program Director:**

Jason L Kessler

**Program Manager:**

Carlos Torrez

### Technology Areas

**Primary:**

- TX16 Air Traffic Management and Range Tracking Systems
  - └ TX16.3 Traffic Management Concepts